

PCD Photochemical Derivatisation



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►► Product Introduction

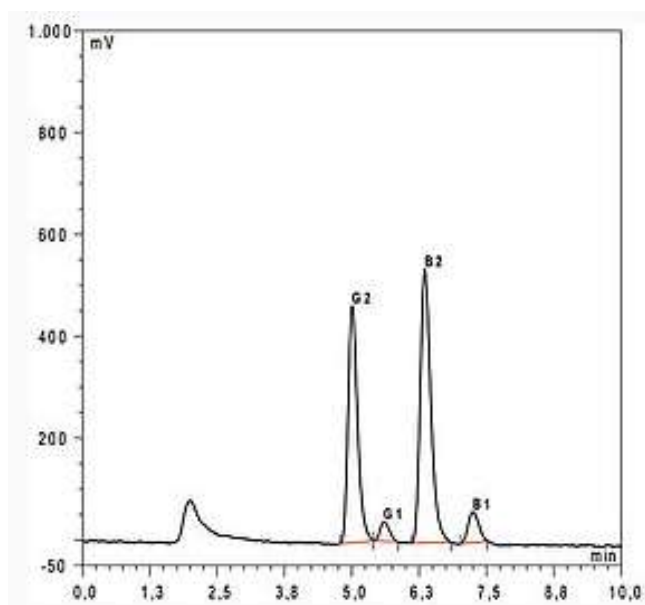
Photochemical Reactor for the Derivatisation of Aflatoxins with UV-Light

Due to the low aflatoxins limits in food and low inherent fluorescence of aflatoxins B1 and G1, aflatoxin analysis needs to be optimised through derivatisation.

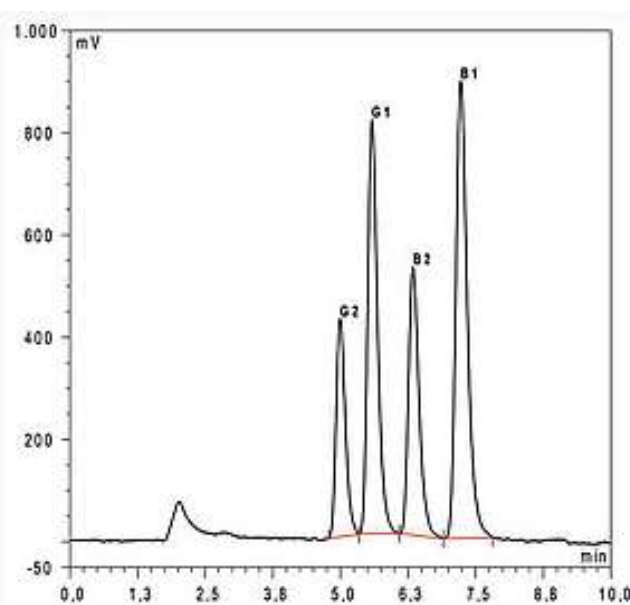
This is done photochemically with the UVE under UV light radiation at 254 nm.

Aflatoxins B1 and G1 are thereby hydroxylated and can then be measured through fluorescence spectrometry. The sensitivity of the measurement increases considerably.

Key advantage of using UVE over electrochemical bromination: the water, present in the eluent, is used as the reagent, hence neither iodine nor HNO₃ / KBr are required. In addition, the detector will not be contaminated and no variation in derivatisation will occur. This method is accepted by the AOAC, has been used successfully in collaborative trials and is in use worldwide in accredited laboratories.



Without PCD



With PCD: high intensity of the signals

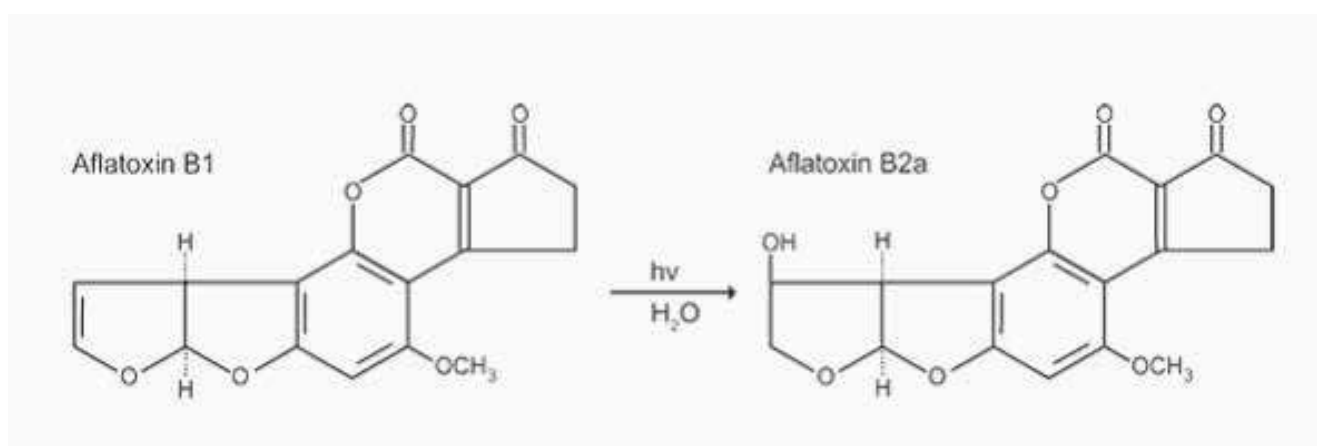
►► In Short, LCTech PCD

- The UV lamp is designed for an operation of over several thousand hours.
- No toxic reagents are necessary, because water is used as reagent.
- Increase of fluorescence of Aflatoxin B1 and G1 by UV light.
- Comparable to Cobra cell, but no reagents needed.
- Can be used with any HPLC.
- The HPLC system stays clean and is immediately ready for other applications; no more complex rinsing required.

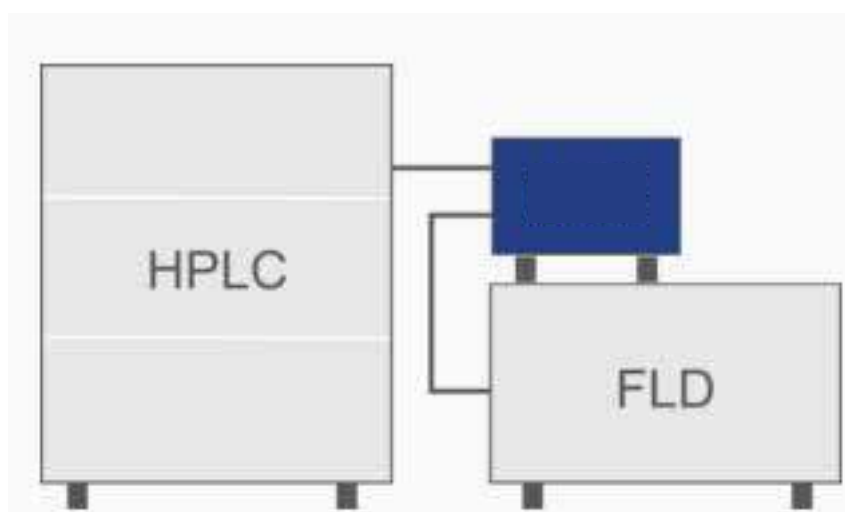
- Easy Plug and Play installation: connect UVE with HPLC and detector, then turn on; the unit is ready for operation. Compact device: 15 cm wide, 9 cm high, 27 cm deep
- Low costs and maintenance
- European CE certificate and DIN ISO certified

►► Easy and Effective

The UVE derivatization module allows easily analysing aflatoxins with HPLC. The reaction is a simple derivatization of B1 to B2a.



The application can be done easily. Simply place the UVE between the HPLC and the fluorescence detector, switch on the system – ready



Up to now reagents had to be added for the derivatization – whereas the photo-chemical reactor directly uses the HPLC eluent as reagent. The HPLC system remains clean and can immediately be used for other methods. Any tedious and long lasting rinsing of the system is no longer necessary.

A confirmation analysis of the aflatoxins B1 and G1 can be performed by switching off the system without any displacement of the retention times.

The system is very robust and long-living.

HPLC Servicing, Validation, Trainings and Preventive Maintenance :

HPLC Servicing :HPLC Servicing : We have team of service engineers who can attend to any make of HPLC promptly @the most affordable cost.

Trainings :We also take up preventive Maintenance to reduce downtime of HPLC's Trainings.

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system

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Analytical Foundation

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2. Improving quality of life by offering YOGA Training courses, Work shops/Seminars etc.

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